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The Trusted Integrator for Sustainable Solutions

REMOVAL SUPPORT TEAM 2
EPA CONTRACT EP-W-06-072

May 20, 2014

Mr. Angel Rodriguez, On-Scene Coordinator
U.S. Environmental Protection Agency
Response and Prevention Branch
Caribbean Environmental Protection Division, Region II
1492 Peñuelas De Leon Ave., Suite 417
San Juan, PR 00907-4127

EPA CONTRACT No.: EP-W-06-072

TDD No.: TO-0029-0122

DOCUMENT CONTROL No.: RST 2-02-F-2692

**SUBJECT: PHASE IIID REMOVAL ASSESSMENT SAMPLING TRIP REPORT –
PUERTO RICO OLEFINS ASBESTOS SITE, PEÑUELAS, PUERTO RICO**

Dear Mr. Rodriguez,

Enclosed please find the Phase IIID Removal Assessment Sampling Trip Report for the wipe sampling activities conducted on January 9, 2014 at the Head Start Encarnacion School as part of the Puerto Rico Olefins Asbestos Site Removal Assessment located in Peñuelas, Puerto Rico. If you have any questions or comments, please do not hesitate to contact me at (787) 354-2489.

Sincerely,

Weston Solutions, Inc.


for Carlos Huertas
RST 2 Site Project Manager

Enclosure

cc: TDD File No.: TO-0029-0122

**PHASE IIID REMOVAL ASSESSMENT
SAMPLING TRIP REPORT
PUERTO RICO OLEFINS ASBESTOS SITE
PEÑUELAS, PUERTO RICO**

Prepared for:

U.S. Environmental Protection Agency
Region II – Response and Prevention Branch
Edison, New Jersey 08837

Prepared by:

Removal Support Team 2
Weston Solutions, Inc.
East Division
Edison, New Jersey 08837

DC No.: RST 2-02-F-2692
TDD No.: TO-0029-0122
EPA Contract No.: EP-W-06-072

May 2014

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PHASE IIID REMOVAL ASSESSMENT SAMPLING TRIP REPORT

SITE NAME: Puerto Rico Olefins Asbestos Site –
(Head Start Encarnacion School)

DC No.: RST 2-02-F-2692

TDD No.: TO-0029-0122

SAMPLING DATE: January 9, 2014

1. Site Location: Peñuelas, Puerto Rico (17°59'49.37"N / 66°43'10.17"W)
Refer to Attachment A, Figure 1: Site Location Map.

2. Sample Descriptions: Five wipe samples. Refer to Attachment A, Figure 2: Head Start Wipe Sample Location & Validated Analytical Results Map and Attachment B, Table 1: Sample Collection Information and Validated Analytical Data Summary.

3. Laboratory Receiving Samples:

Lab Name/Location	Sample Type	Parameters
EMSL Analytical, Inc. 200 Route 130 North Cinnaminson, NJ 08077	Wipe	Asbestos

4. Sample Dispatch Data:

On January 9, 2014, Weston Solutions Inc., Removal Support Team 2 (RST 2) shipped five wipe samples to the EMSL Analytical, Inc. laboratory located in Cinnaminson, New Jersey for asbestos analysis under Chain of Custody (COC) Number (No.) 2-010914-132414-0014 and FedEx Airbill No. 804295443360. Refer to Attachment C: Chain of Custody Record and FedEx Airbill.

5. Personnel On Site:

<u>Name</u>	<u>Representing</u>	<u>Duties On-Site</u>
Geoffrey Garrison Joel Estrada	U.S. EPA, Region II Head Start Encarnacion School	On-Scene Coordinator School Assistant Director
Carlos Huertas	RST 2, Region II	Site Project Manager, Field Coordinator, Site Health and Safety, Sample Collection and Sample Management
Emilio Betancourt Joel Petty	RST 2, Region II RST 2, Region II	Sample Collection and Sample Management Sample Collection, Site QA/QC and Sample Management

6. Site Background:

The Puerto Rico Olefins Asbestos Site (the Site) is located at Road 385, KM 5.4, Tallaboa, Poniente Peñuelas, Puerto Rico. During a visual inspection, the U.S. Environmental Protection Agency (EPA) identified fugitive dust clouds migrating out of the facility during demolition activities conducted by HOMECA Inc. Beginning in 2010 and continuing until the present, an asbestos abatement occurred at the Site. Improper asbestos abatement techniques may have been used at the Site resulting in potential asbestos contamination throughout the Site and in residential neighborhoods downwind of the Site.

On November 21, 2013, as part of Phase I of the Removal Assessment, the EPA On-Scene Coordinator (OSC), EPA Air Program representative, and RST 2 mobilized to the Site to perform multi-media sampling. As directed by the EPA OSC, RST 2 collected five bulk samples, including one field duplicate, four soil samples, including one field duplicate, and 10 wipe samples, including one wipe blank. Bulk samples were collected and submitted for asbestos analysis via EPA 600/R-93/116 Method using Polarized Light Microscopy (PLM). Soil samples were collected and submitted for asbestos analysis via modified EPA 600/R-93/116 Method using Transmission Electron Microscopy (TEM) with California Air Resource Board (CARB) 435 prep. Wipe samples were collected and submitted for asbestos analysis via American Society for Testing Materials (ASTM) 6480-05 Method. Samples were collected from outside areas where suspected asbestos contamination may have occurred and inside areas where asbestos may have entered the building.

On December 13, 2013, as part of Phase I of the Removal Assessment, the EPA OSC and RST 2 remobilized to the Site to collect two additional bulk samples. The additional bulk samples were collected from two specific locations as directed by the EPA OSC. The two bulk samples were collected and submitted for asbestos analysis via EPA 600/R-93/116 Method using PLM. Samples were collected from outside areas where suspected asbestos contamination may have occurred.

Based on the validated analytical results of the samples collected as part of Phase I of the Removal Assessment, asbestos was detected in bulk samples ranging from non-detect to 40 percent (%) amosite and 20% chrysotile, in soil samples ranging from 3 amosite/chrysotile asbestos structures to 9 amosite/chrysotile asbestos structures, and in wipe samples ranging from 7,760 structures per square centimeter (str/cm²) to 374,000 str/cm². The two additional bulk samples collected on December 13, 2013 were both non-detect for asbestos. The wipe blank sample was non-detect for asbestos.

On December 4 and 5, 2013, as part of Phase II of the Removal Assessment, the EPA OSC and RST 2 mobilized to the Jorge Lucas Perez Valdivieso School, located approximately 0.25 miles south of the Site, to conduct air sampling activities within classrooms identified by the EPA OSC. The school is separated into two areas referred to by RST 2 as Area 1 and Area 2. The two separate areas are separated by a road way. As directed by the EPA OSC, RST 2 established three air sampling stations within eight of the schools classrooms (CR01 through CR08). Air samples were collected from each of the established air sampling stations within each classroom but per the request of the EPA OSC only one of the air samples from each of the classrooms was submitted for asbestos analysis.

On December 5, 2013, as part of Phase II of the Removal Assessment, RST 2 shipped 11 air samples, including two lot blanks and one field blank, to the EMSL Analytical, Inc. laboratory for asbestos analysis via Method ISO 10312 - International Standard for the Determination of Asbestos Fibers - Direct Transfer. Per the request of the EPA OSC, on December 13, 2013, RST 2 shipped the additional two air samples collected on December 4, 2013 from classroom CR01 to the EMSL Analytical, Inc. laboratory for asbestos analysis via Method ISO 10312 - International Standard for the Determination of Asbestos Fibers - Direct Transfer.

Based on the validated analytical results of the samples collected as part of Phase II of the Removal Assessment, chrysotile asbestos was detected in eight of the 10 field air samples submitted for asbestos analysis. The total number of asbestos structures in the positive detections ranged between 2 and 25. The reported concentrations in the positive detections ranged between 0.0004 structures per cubic centimeter (s/cc) and 0.0032 s/cc.

On December 12 and 13, 2013, as part of Phase IIIA of the Removal Assessment, the EPA OSC and RST 2 mobilized to the Jorge Lucas Perez Valdivieso School to perform wipe sampling within the classrooms of the school. The areas identified in each classroom to be sampled were the entrance, near a window, and the dustiest area in the room. A total of 90 wipe samples, including five field blanks and one lot blank, were collected from 28 classrooms (CR01 through CR29, excluding CR27). Classroom CR27 and some other general areas of the school were not sampled due to the fact that the areas were not accessible or as directed by the EPA OSC. Wipe samples were collected and submitted for asbestos analysis via ASTM 6480-05 Method.

Based on the validated analytical results of the samples collected as part of Phase IIIA of the Removal Assessment, asbestos was detected in wipe samples ranging from non-detect to 363,000 str/cm². The wipe blank samples were non-detect for asbestos.

On December 17 through 19, 2013, as part of Phase IIIB of the Removal Assessment, the EPA OSC and RST 2 mobilized to the Tallaboa Encarnacion Community to perform wipe sampling on the exterior of several properties. As directed by the EPA OSC, the area identified to be sampled had to be exposed to ambient air, but not exposed to rain or had not been cleaned recently. A total of 27 wipe samples, including two field blanks, were collected from 24 properties (P0005 through P0028). Wipe samples were collected and submitted for asbestos analysis via ASTM 6480-05 Method.

Based on the validated analytical results of the samples collected as part of Phase IIIB of the Removal Assessment, asbestos was detected in wipe samples from non-detect to 32,200,000 str/cm². The wipe blank samples were non-detect for asbestos.

On January 2 and 3, 2014, as part of Phase IIIC of the Removal Assessment, the EPA OSC, RST 2, and the Puerto Rico Environmental Quality Board (EQB) mobilized to background locations, selected by the EPA OSC, at different distances and directions from the Site. As directed by the EPA OSC, the area identified to be sampled had to be exposed to ambient air, but not exposed to rain or have not been cleaned recently. A total of 13 wipe samples, including one field blank, were collected from 12 properties (P0029 through P0040).

Properties P0029 through P0032 were located over five miles northwest of the Site; properties P0033 through P0036 were located over one mile north of the Site; and properties P0037 through P0040 were located over two miles southeast of the Site. Wipe samples were collected and submitted for asbestos analysis via ASTM 6480-05 Method.

Based on the validated analytical results of the samples collected as part of Phase IIIC of the Removal Assessment, asbestos was detected in wipe samples ranging from non-detect to 160,000 str/cm². The wipe blank sample was non-detect for asbestos.

As part of Phase IIID of the investigation, RST 2 was tasked with conducting wipe sampling at the Head Start Encarnacion School located approximately 0.5 miles south of the Site.

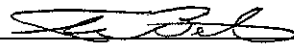
7. Phase IIID Removal Assessment Summary:

On January 9, 2014, the EPA OSC and RST 2 mobilized to the Head Start Encarnacion School (property P0014) to perform wipe sampling activities within the school. As directed by the EPA OSC, RST 2 collected five wipe samples from inside the classroom. The areas identified in each classroom to be sampled were the entrance, near a window, the dustiest area in the room, and two other high use areas. A total of five wipe samples were collected from property P0014. Wipe samples were collected and submitted for asbestos analysis via ASTM 6480-05 Method. Refer to Attachment D for the Photographic Documentation Log for the Phase IIID Removal Assessment sampling event.

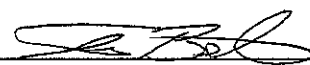
Surface dust samples were collected from areas where suspected asbestos contamination may have occurred (*i.e.*, dusty areas within each classroom and near windows), utilizing dedicated Ghost Wipes™. Samples were collected following the general guidance within the HUD Guidelines, Chapter 5: Risk Assessment. Each sample was collected from a 10 cm by 10 cm square (100 cm²) area utilizing EPA Environmental Response Team (ERT) Standard Operating Procedure (SOP) Nos. 2001, General Field Sampling Guidelines and 2011, Chip, Wipe, and Sweep Sampling, as well as NIOSH Method 9100, as guidance.

8. Analytical Discussion:

Based on the validated analytical results of the samples collected as part of Phase IIID of the Removal Assessment, asbestos was detected in wipe samples ranging from 2,910 str/cm² to 41,700 str/cm². Refer to Attachment B, Table 1: Sample Collection Information and Validated Analytical Data Summary.

Report prepared by: 
for Carlos Huertas
RST 2 Site Project Manager

Date: 5/20/14

Report reviewed by: 
Timothy Benton
RST 2 Operations Manager

Date: 5/20/14

ATTACHMENT A

Figure 1: Site Location Map

Figure 2: Head Start Wipe Sample Location & Validated Analytical Results Map



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

Legend



Site Location

0 0.05 0.1 0.2 0.3 0.4
Miles



Weston Solutions, Inc.
East Division

In Association With
H & S Environmental, Inc.,
Scientific and Environmental Associates, Inc.
and Avatar Environmental, LLC.

Figure 1 Site Location Map

**Puerto Rico Olefins Asbestos
Penuelas, Puerto Rico**

U.S. ENVIRONMENTAL PROTECTION AGENCY
REMOVAL SUPPORT TEAM 2
CONTRACT # EP-W-06-072

DATE MODIFIED: 12/26/2013
GIS ANALYST: T. BENTON
EPA OSC: A. RODRIGUEZ
RST SPM: C. HUERTAS
FILENAME: SITEMAP.MXD



SCALE
1:307

Wipe Sample Location

Site Boundary

0.5 Mile Radius

Note:

1.) All wipe samples were collected from interior locations.

2.) Due to excessive particulate the analytical sensitivity of 260 str/cm² as required by the method was not reached.

Figure 2: Head Start Wipe Sample Location & Validated Analytical Results Map

Puerto Rico Olefins Asbestos Site
Penuelas, Puerto Rico

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REMOVAL SUPPORT TEAM 2
CONTRACT # EP-W-06-072

Weston Solutions, Inc.

In Association With
Avatar Environmental, LLC,
H & S Environmental, Inc. and
Scientific and Environmental Associates, Inc.,

GIS ANALYST:	T. BENTON
EPA OSC:	A. RODRIGUEZ
RST 2 SPM:	C. HUERTAS
FILENAME:	Head StartMap.mxd
FIGURE	1
REVISION	0
DATE MODIFIED	1/13/2014

ATTACHMENT B

Table 1: Sample Collection Information and Validated Analytical Data Summary

Table 1: Sample Collection Information and Validated Analytical Data Summary
 Puerto Rico Olefins Asbestos Site
 Peñuelas, Puerto Rico
 January 9, 2014

Sample #	Sample Area	Area Surface	Sample Location	Sample Date	Sample Time	Matrix	Collection	Analysis	Sample Type	Asbestos Type	Asbestos Structures	Sensitivity * (str/cm ²)	Concentration (str/cm ²)
P0014-WP02-01	Entrance	Concrete	Floor by Entrance	1/9/2014	13:45	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	43	970	41,700
P0014-WP03-01	Near Window	Wood	Desk by Window	1/9/2014	13:47	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	3	970	2,910
P0014-WP04-01	Dusty Area	Metal	Top of Refrigerator	1/9/2014	13:49	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	9	970	8,730
P0014-WP05-01	Accessible to Children	Wood	Desk	1/9/2014	13:51	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	3	970	2,910
P0014-WP06-01	Accessible to Children	Wood	Cubby (Storage Area)	1/9/2014	13:53	Wipe	Grab	Asbestos - TEM	Field Sample	Chrysotile	15	970	14,600

* Due to excessive particulate the analytical sensitivity of 260 str/cm² as required by the method was not reached.

TEM - Transmission Electron Microscopy

str/cm² - Structures per centimeter squared

ATTACHMENT C

Chain of Custody Record and FedEx Airbill

CHAIN OF CUSTODY RECORD

Site #: 0029 - 0122

Contact Name: Smita Sumbaly

Contact Phone: 732-585-4400

Cooler # 1

Lab: EMSL

Lab Phone: 800-220-3675

041400517

[illegible]

Special Instructions: 24 Hour TAT Preliminary Data. Email results to Carlos.Huertas@WestonSolutions.com, Joel.Petty@WestonSolutions.com, and S.Sumbaly@WestonSolutions.com

**SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #**

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
all samples attached	Jill Petty RS T2	1/9/14 1500	Magnus Mollon-ems164	1/10/14 10:10am	acceptable

FedEx Express International Air Waybill

1. From Please print and press hard. Sender's FedEx
 Date 1/19/14 Account Number
 Sender's Name Joel Petty Phone 732-570-4943
 Company Western Solutions
 Address 700 Europa Street
 Address Papan Fernandez Jones Corner, Suite 206
 City Santurce State PR
 Country USA ZIP Postal Code 00910
 To Recipient's Name
 Phone 800-220-3675

Company EMSL Analytical
 Address 200 Route 130 North
 Address
 City Cinnamon
 State Province NJ
 ZIP Postal Code 08077

Shipper's Information
 Recipient's Tax ID Number for Customs Purposes
 Total Packages 1 Total Weight 1.00 lb. 0.00 oz.
 Country USA

3. Shipment Information
 Description of Contents Environmental Samples
 Country of Origin USA
 Country of Destination USA
 Date of Shipment 1/19/14
 Date of Delivery 1/20/14
 Total Packages 1 Total Weight 1.00 lb. 0.00 oz.
 Country of Origin USA
 Country of Destination USA
 Date of Shipment 1/19/14
 Date of Delivery 1/20/14

4. Express Package Service
 Express (Priority) ☒ FedEx Int'l. First ☐
 FedEx Int'l. Economy ☐
 5. Packaging
 FedEx Envelope ☐ FedEx Pak ☒ FedEx Box ☐ FedEx Tube ☐
 Other ☐ FedEx 15kg Box ☐ FedEx 25kg Box ☐
 6. Special Handling
 HOLD at FedEx Location ☐ SATURDAY Delivery ☐
 7. Payment
 Bill Remittance charges to:
 Bill to Sender ☒ Bill to Recipient ☐ Bill to Third Party ☐
 Sender's Account No. 403 356 103
 Recipient's Account No. 7133
 8. Your Internal Billing Reference

9. Required Signature
 Signature: [Signature]
 Title: [Title]
 For Completion Instructions, see back of fifth page.
 568
 0402
 8042 9544 3360
 Ship and track packages at fedex.com
 Questions? Go to our Web site at fedex.com.
 Outside the U.S., call your local FedEx office.

RETAIN THIS COPY FOR YOUR RECORDS.

ATTACHMENT D

Photographic Documentation Log

**Photographic Documentation Log
Puerto Rico Olefins Asbestos Site
Peñuelas, Puerto Rico
January 9, 2014**



Photo 1: Sample P0014-WP02-01. Sample collected on the floor of the entrance at property P0014.



Photo 2: Sample P0014-WP03-01. Sample collected on top of desk by window.

**Photographic Documentation Log
Puerto Rico Olefins Asbestos Site
Peñuelas, Puerto Rico
January 9, 2014**

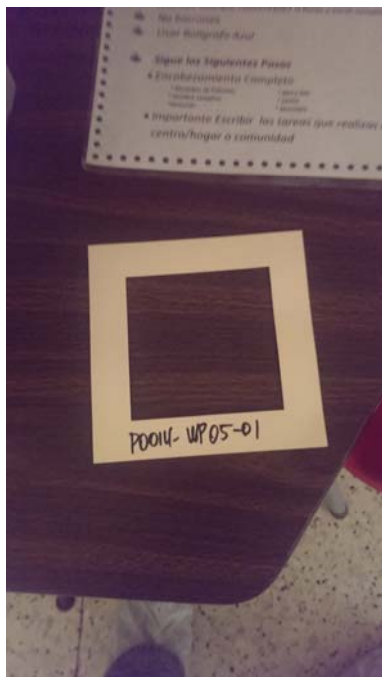


Photo 3: Sample P0014-WP05-01. Sample collected on desk in reach of small children.



Photo 4: Sample P0014-WP06-01. Sample collected at small “cubby” area in reach of small children.